Northwest Indian Fisheries Commission FY 02 Overview

Introduction

"We, the Indians of the Pacific Northwest, recognize that our fisheries are a basic and important natural resource and of vital concern to the Indians of this state, and that the conservation of this natural resource is dependent upon effective and progressive management. We further believe that by unity of action, we can best accomplish these things, not only for the benefit of our own people but for all of the people of the Pacific Northwest."

– Preamble to the Constitution of the NWIFC

The Northwest Indian Fisheries Commission was created in 1974 by the treaty Indian tribes in western Washington as a result of the *U.S. vs. Washington* litigation that affirmed fishing rights reserved by the tribes in treaties signed with the federal government in the 1850s.

The commission's role is to assist the tribes in conducting biologically-sound fisheries and to provide member tribes with a single, unified voice on fisheries management and conservation issues. Member tribes are: Nisqually, Squaxin Island, Puyallup, Jamestown S'Klallam, Port Gamble S'Klallam, Lower Elwha Klallam, Skokomish, Swinomish, Sauk-Suiattle, Upper Skagit, Tulalip, Makah, Stillaguamish, Muckleshoot, Suquamish, Nooksack, Lummi, Quinault and Quileute.

The tribes select commissioners who develop policy and provide direction to NWIFC staff. The commissioners elect a chairman, vice chairman and treasurer. The commission's executive director supervises the staff that implements the policies and fisheries management activities approved by the commissioners. The NWIFC employs about 70 full-time employees in its Administration, Fishery Services, Habitat Services, and Information and Education Services divisions.

Jim Bertolini, NWIFC fish pathologist, gathers tissue samples from Lake Quinault sockeye to check for pathogens. *Photo: D. Preston*

The Administration Division includes the executive director, human resources and operations administrator, director of fishery services, fishery and legislative policy analysts, and clerical and accounting departments.

The Fishery Services Division supports and promotes the fishery programs of member tribes by providing technical assistance, coordinating management programs and representing tribal management policies. The program is comprised of the Fishery Management and Planning Division, Quantitative Services Division and Enhancement Services Division, and provides services ranging from harvest management planning to database management and fish health.

The Habitat Services Division provides coordination, representation and technical and policy assistance to member tribes on fish habitat and other environmental issues. In addition, the program coordinates tribal participation in forest management processes and conducts a statewide Coordinated Tribal Water Quality Program, among other programs.

The Information and Education Division provides comprehensive public relations services to member tribes. The division produces news releases, publications and videos, works with the media, coordinates and provides public presentations, develops and staffs educational exhibits at fairs and other events, and responds to numerous information requests from agencies, organizations and the public, among other activities.

FY 02 Overview

Ongoing implementation of the Endangered Species Act (ESA), continued implementation of the Hatchery Reform effort, and further development of a cooperative approach to salmon recovery were major focuses during FY 02. Salmon marketing, coastal groundfish and water resource planning were among other important issues addressed by the NWIFC.

The listing several years ago of Puget Sound chinook, Lake Ozette sockeye and Hood Canal summer chum under the Endangered Species Act has made fisheries management a challenging task for the tribal co-managers, who must construct fisheries that allow for harvest of healthy salmon stocks while minimizing impacts to weak runs. Under the ESA, the tribes and state also must address impacts of hatchery operations on threatened salmon stocks, an important activity during FY 02.

State and tribal fisheries officials completed a major, two-year review of Puget Sound chinook salmon hatcheries that provides a comprehensive scientific framework for operations. The review, called a Resource Management Plan, marks the first time that treaty Indian tribes on Puget Sound and the Washington Department of Fish and Wildlife (WDFW) have jointly developed specific, scientific criteria for chinook hatchery operations on a regional basis.

The plan submitted to the National Marine Fisheries Service (NMFS) documents changes that have already been made, and provides guidance for future changes. The document is expected to serve as a framework for efforts to recover naturally spawning chinook populations. A companion review by the state and tribes of chinook harvest practices was previously submitted to NMFS and approved.

While the findings and recommendations in the plan are expected to assist in naturally spawning chinook recovery efforts, they are also expected to be used extensively in the broader Hatchery Reform effort now under way to reform all hatchery practices in Puget Sound and coastal Washington. The goal is to ensure the facilities meet the dual mandate of helping recover naturally spawning salmon as well as providing for sustainable fisheries.

The plan includes a host of specific improvements at several facilities to minimize any adverse impacts of hatchery operations on naturally spawning fish populations, and calls for substantial commitments to research and monitoring to answer further questions on the impacts of hatchery origin salmon.

Other immediate changes will be put in place to reduce potential risks posed by interactions between hatchery origin and naturally spawning fish, including changes in hatchery release practices. The plan also calls for maintaining state-of-the art fish health monitoring, facility disinfecting and disease management procedures presently used during hatchery operations.

In addition to providing the hatchery plan to NMFS, WDFW and the tribes have prepared individual Hatchery Genetic Management Plans (HGMPs) for each chinook production program in the Puget Sound area. The HGMPs, developed as part of the Hatchery Reform process, outline specific production practices for each chinook production program, and are being reviewed by NMFS as part of the chinook recovery process. Implementation of the Shared Strategy for Salmon Recovery carried on strongly during FY 02.

The Shared Strategy is a cooperative effort that links ongoing wild salmon recovery initiatives at the tribal, state, federal and local levels to create a plan that is viable and cost-effective. It establishes, organizes and manages these links; identifies necessary long- and short-term actions and coordinates funding needs; and proposes laws or policies needed to support wild salmon recovery.

Key to the Shared Strategy's potential for success is the endorsement and participation in the process by the National Marine Fisheries Service (NMFS), the federal agency responsible for implementing the ESA and for overseeing recovery efforts for listed species.

A team of technical experts from the tribes, as well as state, federal and local agencies has worked with a diverse group of private and public sector leaders to develop chinook salmon recovery planning goals for several watersheds. Planning targets have, or are currently being developed, for individual populations of Puget Sound chinook.

Groundfish have always been important to the cultures of the treaty Indian tribes in western Washington. Today, harvest restrictions in place to protect weak wild salmon stocks – coupled with poor market conditions – have made groundfish species such as halibut, sablefish, Pacific cod, dogfish and rockfish increasingly important to the treaty Indian tribes.

Unfortunately, just as coastal treaty tribes are beginning to fully access some of their treaty-reserved harvest of groundfish, several rockfish species have declined sharply. As a result, severe harvest restrictions have been implemented, threatening the cultural, spiritual and economic vitality of coastal treaty tribes.

Although the tribes have begun to formulate some of the necessary management tools and assessment of groundfish resources, inadequate staffing and funding limits have prevented development of fully functional tribal groundfish programs. Full development of tribal groundfish programs will require additional funding to augment existing fishery management activities.

Salmon marketing became an emerging focus for the NWIFC and its member tribes during FY 02. Tribal fishermen can't compete in the marketplace with farm-reared Atlantic salmon. Most of the salmon harvested by the treaty tribes comes onto the market in about a six-month period. Farmed salmon – from Chile and Norway and elsewhere – is heavily subsidized by those countries and is available year round. Restaurants and retailers like farmed salmon because it's uniform in size and color, can be sent almost anywhere in the world overnight, and is less expensive than tribally-harvested salmon.

Tribes and their NWIFC are investigating a variety of approaches to compete with farmed salmon, ranging from obtaining federal subsidies to exploring niche markets.

FY 02 Activities Summary

Following is a synopsis of activities by the NWIFC during FY 02:

Fishery Services

Fishery Management And Planning Division

The primary objective of the Fishery Management and Planning Division is to provide technical assistance and coordination to member tribes in their annual and long-range fishery management planning activities.

Activities included:

- Long range planning, wild salmon recovery efforts and Endangered Species Act implementation;
- Development of pre-season fishing agreements;
- Development of pre-season and in-season run size forecasts;
- In-season fisheries monitoring; and
- Post-season fishery analysis and reporting.

Quantitative Services Division

The Quantitative Services Division's objective is to assist tribal fishery management programs by providing relevant data, quantitative tools and analyses, and technical consulting services to tribal and NWIFC projects.

Activities included:

- Administering and coordinating the Treaty Indian Catch Monitoring Program. The program provides an agreed-upon harvest database that can provide hard catch statistics critical for fisheries management planning and allocation;
- Providing statistical consulting services for pre-season abundance forecasts and in-season run size update models;
- Conducting data analysis of fisheries studies and developing study designs; and
- Updating and evaluating fishery management statistical models and databases.

Enhancement Services Division

The Enhancement Services Division provides tribal support services in enhancement planning, hatchery coordination, coded wire tagging, and fish health.

Activities included:

- Coded wire tagging of 3.5 million fish at tribal hatcheries to provide information critical to fisheries management;
- Fulfilling tribal requests for coded wire tag analysis;
- Providing genetic, ecological, and statistical consulting for tribal hatchery programs; and
- Providing fish health services to tribal hatcheries in the areas of juvenile fish health monitoring, disease diagnostics, adult health inspection and vaccine production.

U.S./Canada Pacific Salmon Treaty Implementation

The Pacific Salmon Treaty of 1985 provides for tribal representation at all levels of the Pacific Salmon Commission, which implements the treaty. The NWIFC staff are involved in many aspects of the treaty's implementation.

Activities included:

- Facilitating inter-tribal and inter-agency meetings, developing issue papers and negotiation options;
- Informing tribes and policy representatives on issues affected by the treaty implementation process;
- Serving on the Fraser sockeye and pink, chum, coho, chinook, and data sharing technical committees, as well as other work groups and panels; and
- Coordinating tribal research and data gathering activities associated with implementation of the Pacific Salmon Committee.

Habitat Services Division

The Habitat Services Division provides coordination, representation and technical assistance to member tribes on fish habitat and other environmental issues. The division monitors these issues and acts as an information clearinghouse.

Activities included:

- Coordinating policy and technical level discussion between tribes and federal, state and local governments, and other interested parties;
- Coordinating, representing and monitoring tribal interests in the Timber/Fish/Wildlife process, Coordinated Tribal Water Quality and Ambient Monitoring programs;
- Monitoring, analyzing and distributing technical information on habitat-related forums, programs and processes; and
- Implementing the Salmon and Steelhead Habitat Inventory and Assessment Project.

Information And Education Services Division

The Information and Education Services Division provides comprehensive public relations and educational service to member tribes.

Activities included:

- Producing news releases, newsletters, brochures, reports, curricula, videos, photographs, exhibits and maintaining a web site to educate the public about tribal natural resource management activities and objectives;
- Producing newsletters, background papers and other materials to help keep member tribes informed on topics of interest;
- Responding to hundreds of public requests for information on the tribes and tribal natural resource management activities; and
- Monitoring legislation and coordinating tribal input.

For More Information

For more information about the natural resource management activities of the treaty Indian tribes in western Washington, contact the Northwest Indian Fisheries Commission, 6730 Martin Way E., Olympia, WA 98516; or call (360) 438-1180. Visit the NWIFC home page at www.nwifc.org.

Tribal Wild Salmon Recovery Efforts

Introduction

Indian tribes have always lived on every major watershed in what is now the State of Washington. From time immemorial, the salmon has been central to tribal cultures.

Today, the wild salmon upon which the tribes have always depended are disappearing. Habitat destruction and degradation from over a century of timber harvesting, dam construction, loss of instream flows, past overharvesting, over-dependence on hatcheries and other factors have all contributed to the decline of wild salmon. Over the past 25 years, a huge population influx around the Puget Sound has accelerated the loss and degradation of what remains of the region's once highly productive salmon habitat.

The salmon's biological needs are straightforward: an adequate supply of clean water, properly functioning spawning and rearing habitat, access to and from the sea, and a sufficient number of adult salmon returning to spawn. Providing these basic requirements, however, is the most difficult environmental, economic, political and social challenge ever faced by the Pacific Northwest.

A wild coho leaps a barrier on the Washington coast's Salmon River as it returns home to spawn. *Photo: D. Preston*

In the spring of 1999, the National Marine Fisheries Service listed three western Washington salmon stocks – Puget Sound chinook, Hood Canal/Strait of Juan de Fuca summer chum, and Lake Ozette sockeye – as "threatened" under the Endangered Species Act. The ESA is a law of last resort to save distressed species from extinction, protecting not only listed salmon but also their habitat. The listing was the first of a species that resides in a heavily urbanized area such as Puget Sound, and has placed massive new responsibilities on the treaty tribes as co-managers of the salmon resource.

While the ESA is neither the starting point nor end point for salmon recovery, it is now the filter through which potentially harmful activities are evaluated as individuals, corporations, industries and governments seek to move forward on development plans in a manner consistent with the ESA and the needs of salmon.

Over the past two decades, in response to dwindling populations and reflecting a commitment to sustainable fisheries, tribes and the state have reduced their harvest of salmon by 75 percent. Fishery closures and reductions have resulted in severe economic hardship for tribal fishermen on reservations, where unemployment runs as high as 80 percent.

Improved ocean conditions contributed to larger returns in some areas in 2001 and 2002, but tribal and state fisheries managers continued to implement conservative harvest plans designed to protect weak wild stocks. Harvest reductions alone cannot stem the decline of wild salmon production caused by lost and degraded habitat, which continues to suppress the overall trend in abundance for wild salmon populations.

The tribes know that the battle to save the salmon cannot be fought alone. Only through cooperation and a shared vision for salmon recovery by tribal, state, federal and local governments, industry, conservation organizations and the public will wild salmon be restored. All are participants in a "Shared Strategy" for salmon recovery now being implemented in western Washington. The Shared Strategy has been endorsed by the National Marine Fisheries Service as the vehicle to develop recovery plans for threatened salmon stocks throughout Puget Sound, including the Strait of Juan de Fuca.

Tribal, state and federal fisheries managers are integrating management of harvest, hatcheries and habitat through the Shared Strategy in a comprehensive approach that offers the region's best hope for achieving wild salmon recovery.

The Shared Strategy

In the fall of 1999, more than 200 tribal, federal, state and local leaders met to discuss the salmon crisis. They identified common goals for wild salmon and worked to find ways to achieve those goals. Their vision is clear: healthy ecosystems to produce and support wild salmon at a level that will once again sustain commercial, recreational, ceremonial and subsistence harvest. However, without a common approach to achieve that goal, recovery and protection of wild salmon and their habitats will not be achieved.

The Shared Strategy reflects the following core elements necessary to protect and restore wild salmon and their habitats. They include:

- Sound science to guide and measure recovery efforts;
- Clear and common goals to unite local, regional and national commitments;
- Effective planning to develop integrated, efficient methods of achieving shared goals;
- Successful actions to protect and restore wild salmon populations;
- Accurate monitoring to ensure progress and accountability; and
- Sufficient funding support to sustain protection and restoration efforts of the key participants.

The Shared Strategy is not a top-down approach to wild salmon recovery, but rather a cooperative effort that links ongoing wild salmon recovery initiatives at the tribal, state, federal and local levels to create a plan that is viable and cost-effective. It establishes, organizes and manages these links; identifies necessary long and short-term actions and coordinates funding needs; and proposes laws or policies needed to support wild salmon recovery.

The Shared Strategy recognizes that the management of habitat, harvest and hatcheries cannot be addressed in isolation. For example, harvest management has responded – and must continue to respond – to wild stock declines. However, when long-term problems are rooted primarily in habitat degradation, rather than overfishing, further restrictions in fisheries will not restore depressed stocks to their full productive potential. The answer lies in a comprehensive approach of addressing all impacts to weak stocks, including protecting productive habitat and restoring degraded habitat.

State and tribal salmon harvests are developed and conducted to ensure that weak stocks receive maximum protection from unintended harvest through restrictions such as length of fishing time, locations and gear restrictions. Fisheries managers have strict guidelines for minimizing impacts on weak stocks and they have established a solid track record in achieving those protections. While harvest management by itself will not recover wild salmon, harvest will be constrained to levels that will not impede the level of recovery that will occur if habitat restoration and protection are successful.

The Shared Strategy recovery planning process is occurring in concert with hatchery reform efforts that are designed to reduce conflicts between hatchery and wild stocks. Hatchery practices and production will be integrated into the Shared Strategy recovery plan and will ensure management of hatcheries does not impede recovery. In some watersheds, hatcheries may be an important feature of a recovery plan, and thereby contribute to recovery. The Shared Strategy seeks to protect and restore adequate freshwater habitat and to ensure enough spawning adult salmon escape to use it. The goal is to restore the abundance, productivity and diversity of salmon stocks originating in Puget Sound and the Washington coast to levels that can sustain treaty and non-treaty fisheries.

Watershed recovery plans developed through the Shared Strategy are designed to be flexible and adaptive, with the ability to incorporate new information as it becomes available. The plans can provide standards for hatchery production and habitat maintenance, and they are goal - oriented, with performance based on annual monitoring.

In the past three years, much has been accomplished. Recovery goals have been developed for most chinook salmon stocks in Puget Sound, a recovery plan outline has been prepared, and implementation guidelines for watersheds have been created.

Hatchery Reform

As wild salmon stocks have declined, tribal, state and federal governments have become dependent on hatcheries to provide a meaningful level of harvest for Indian and non-Indian fishermen. Treaty Indian tribes and the State of Washington today operate the largest salmon hatchery system in the world.

The listing of several Puget Sound and coastal salmon stocks under the federal Endangered Species Act placed a spotlight on all activities that may harm wild salmon, including hatchery programs. In response, Congress launched the Puget Sound and Coastal Washington Hatchery Reform Project. The Hatchery Reform Project is a systematic, science-driven examination of how hatcheries can help recover and conserve naturally spawning salmon populations and support sustainable fisheries.

The project has two purposes:

- Helping to recover and conserve naturally spawning populations; and

- Supporting sustainable fisheries.

With the support of Congress and the State of Washington, considerable progress has been made in the three years that the Hatchery Reform Project has been under way.

Initial research has been funded – and is being carried out – to address the knowledge gaps about how hatcheries affect wild stocks. The Hatchery Scientific Review Group – an independent scientific panel appointed to guide the Hatchery Reform effort – has funded three rounds of research projects totaling over $1.5 million. The projects will examine hatchery impacts and the use of hatcheries as tools of conservation.

For each of their chinook hatcheries, tribes and the Washington Department of Fish and Wildlife have completed Hatchery Genetic Management Plans. These plans form the basis of a conservation plan that the National Marine Fisheries Service will consider for Section 4(d) coverage under the Endangered Species Act. Section 4(d) prohibits taking a listed salmon or steelhead, except in cases where the take is associated with an approved program.

There is a clear sense among decision makers that with an understanding of the history of hatcheries, a vision for how hatcheries can be managed differently in the future, and a comprehensive strategic plan that is based on solid science, there is good cause for optimism about the benefits of hatchery reform.

Pacific Coastal Salmon Recovery Program

Congress created the Pacific Coastal Salmon Recovery Program (PCSRP) in 2000 to provide much-needed assistance to tribes as participants in growing salmon recovery efforts in the region. The need for tribal resources is critically important as the region moves forward to develop a salmon recovery plan through the Shared Strategy, which cannot succeed without meaningful tribal participation at all levels.

Tribal projects funded through PCSRP fall under the broad categories of:

- Salmon habitat restoration projects that protect, preserve, restore and enhance salmon habitat and watershed functions;

- Salmon planning and assessments, including watershed assessments, sub-basin planning, mapping and inventories for development of recovery plans;

- Salmon enhancement, including stock supplementation and artificial propagation;

- Salmon research and monitoring, including investigations, studies and validation monitoring; and

- Outreach and education, including workshops, forums, preparation of educational materials, training and citizen participation.

Tribal projects range from wild sockeye supplementation and enhancement efforts on the Washington coast by the Quinault Tribe, to an examination by the Port Gamble S'Klallam Tribe of how juvenile salmon utilize tidal creeks in the Hood Canal region. Most tribal salmon recovery efforts are conducted in cooperation with state, local, federal or private sector entities to more effectively utilize limited tribal resources.

A few examples of tribal projects funded through PCSRP include:

- Assessment by the Jamestown S'Klallam Tribe of limiting factors affecting threatened summer chum salmon in Jimmycomelateley Creek.
- Estimation by the Port Gamble S'Klallam Tribe of the number of outmigrating juvenile salmon in the Hamma Hamma River.
- Supplementation and enhancement by the Quinault Tribe of sockeye salmon in the Quinault River.
- Restoration by the Upper Skagit, Sauk-Suiattle and Swinomish tribes of priority salmon habitat locations in the Skagit River estuary.

Salmon And Steelhead Habitat Inventory And Assessment Project (SSHIAP)

Habitat is key to wild salmon recovery. SSHIAP, a joint effort of the treaty tribes and State of Washington since 1995, is providing a blueprint for joint tribal/ state action to define a cooperative process to implement habitat and restoration strategies by documenting and quantifying past and current habitat conditions; providing a consistent framework for data analysis; assessing the role of habitat loss and degradation on the condition of salmon and steelhead stocks; and assisting in the development of stock- or watershed-specific strategies for habitat protection and restoration.

State salmon recovery legislation includes SSHIAP as the basis for prioritizing salmon recovery projects and as the repository and analysis tool for habitat monitoring information. SSHIAP products include descriptions of the location, amount and current condition of habitats used at various stages in the life of salmon and steelhead, historic habitat loss, and the natural and man-made factors contributing to habitat loss and degradation.

The program has provided information for use in a number of processes, including: Timber/Fish/ Wildlife Watershed Analysis; The Washington Department of Fish and Wildlife/ Washington Department of Transportation salmonid passage database; and development of salmon recovery goals by co-managers using the Ecosystem Diagnosis and Treatment model.

Conclusion

The goal of the treaty Indian tribes in western Washington is to achieve salmon recovery for all depressed salmon stocks in all areas so that they can sustain harvest. Tribes are focusing their regional salmon recovery efforts through the Shared Strategy because – with the endorsement and participation by the National Marine Fisheries Service – it provides the best chance to reach that goal. Wild salmon populations did not decline overnight, and their recovery will be neither quick nor easy. It will take cooperation, much hard work, adequate funding and time to return their numbers to abundance.

For More Information

For more information about the natural resource management activities of the treaty Indian tribes in western Washington, contact the Northwest Indian Fisheries Commission, 6730 Martin Way E., Olympia, WA., 98516; or call (360) 438-1180. Visit the NWIFC home page at www.nwifc.org.

Tribal Fisheries Management

Introduction

Indian tribes have always lived on every major watershed in what is now the State of Washington. From time immemorial, tribal cultures, spirituality and economies have centered on fishing, hunting and gathering the natural resources of this region.

In the mid-1850s, when the United States sought to make land available in the Pacific Northwest for non-Indian settlers, the tribes signed treaties through which they reserved that which was most important to them. Among those reserved rights was the right to harvest salmon in all of their usual and accustomed fishing places.

That promise was broken in the years that followed, but in 1974 a federal district court reaffirmed the tribes' reserved rights in *U.S. vs. Washington* – the Boldt Decision – which was subsequently upheld by the U.S. Supreme Court. This ruling established the tribes as co-managers of the salmon resource.

Tribal fisheries departments over the past 20 years have grown and evolved to fulfill their roles as co-managers of the salmon resource. Early in the 1980s, with only a few years to gain expertise, tribes began getting heavily involved in fisheries planning. As court involvement in the planning process faded away, the tribal and state co-managers began to work out their differences by acting cooperatively. By the mid-80s the tribes and the state began holding annual meetings to map out fishing seasons.

Greg Sullivan, right, and William Jones III, Port Gamble S'Klallam Tribe, gather data as part of a study on how juvenile salmon use tidal creeks for rearing habitat. *Photo: D. Friedel*

Today, tribes operate comprehensive programs addressing every aspect of natural resource management, from water quality, to forest management, shellfish, wildlife and more. Tribal fisheries management has continued to evolve as emerging fisheries have gained new importance and the challenge of managing salmon continues to grow.

Tribal Fisheries Management

Each treaty Indian tribe in western Washington typically maintains an individual fishery management staff that includes a fisheries manager who oversees staff working in the areas of harvest management, enhancement, habitat protection and enforcement. In some cases, several tribes have joined together to form collective fishery management organizations.

The fisheries manager receives direction from the tribal fish committee and tribal council, which balances harvest needs with obligations to the resource. Along with tribal harvest staff, the fisheries manager develops fishery plans and run size forecasts, assesses spawning escapement needs and monitors stock status, among other duties. By assessing in-season run sizes, tribal fisheries staff are able to issue up-to-date regulations in respect to changing conditions.

The tribal hatchery manager, with the aid of support staff, implements the tribe's enhancement program, overseeing hatchery programming and production. As wild runs across western Washington have declined due to lost and degraded habitat, tribes have turned to hatcheries to replace lost stocks.

According to the most recently available statistics, treaty Indian tribes in western Washington released about 30 million healthy young salmon from tribal hatcheries in 2001. The tribes are active participants in a hatchery reform effort now under way in western Washington. The program, now in its third year, is aimed at helping to conserve naturally spawning salmon populations and supporting sustainable fisheries.

As valuable salmon habitat disappears, tribal habitat staff are also continually charged with the task of protecting what rearing and spawning habitat is left. Tribes monitor activities, such as irrigation, forest practices and urban growth, which could impact salmon habitat. Tribes also regularly conduct in-stream habitat improvement and restoration projects.

Each tribe or tribal cooperative also maintains an enforcement program to ensure that fishing regulations are observed by tribal members. Tribal enforcement officers work cooperatively with state and federal fish and wildlife enforcement personnel to protect natural resources. Violations of tribal fishing laws are referred to tribal courts for prosecution.

The tribes also conduct a treaty fisherman identification and vessel registration program. When a treaty fisherman sells his catch, his identification number is included on a fish receiving ticket that records the number, weight, species and location of harvest. The information is an important part of the Treaty Indian Catch Monitoring Program managed by the Northwest Indian Fisheries Commission. Catch data, which is critical to harvest management, is shared on a same-day basis with the Washington Department of Fish and Wildlife (WDFW).

Salmon Management

From the moment of its birth, a Pacific Northwest salmon begins an epic journey through waters off the U.S. and Canadian coasts and through waters in the North Pacific before returning to the stream of its birth to spawn and die.

Fisheries in Puget Sound, the Strait of Juan de Fuca and nearshore coastal waters are co-managed by the treaty Indian tribes and WDFW.

As a sovereign government, each tribe regulates and coordinates its own fishery management program within its specific, adjudicated Usual and Accustomed fishing area. Tribal management jurisdiction includes six species of salmon, halibut, herring, shellfish and other marine species. Tribes conduct fisheries off the Washington coast, in coastal rivers and bays, and throughout the inland waters of Puget Sound and its tributaries.

WDFW manages the state's share of the salmon resource, as well as other food fish and shellfish in this area for commercial and sport user groups.

Tribal and state managers work cooperatively through two overlapping processes, the Pacific Fisheries Management Council (PFMC) and the North of Falcon process (NOF), to shape fishing seasons in respect to the weakest salmon stocks. The PFMC is a public forum established by the federal government and is charged with creating a comprehensive fisheries plan, including the varied interests of tribal, state and federal managers, commercial and sport fishing groups and environmental groups.

While the PFMC is planning ocean fisheries, treaty tribes and states of Oregon and Washington in the NOF process are outlining their inshore and coastal fisheries. The North of Falcon process is so named because it deals with fisheries north of Cape Falcon, in Oregon, to the U.S./ Canadian border. Through NOF, tribal and state biologists forecast expected salmon returns to specific areas. Population estimates are based on biological data collected during salmon migration, along with habitat information and weather conditions that also effect salmon populations. The number of fish available to harvest, determined through NOF, is what is left after escapement needs are met. Escapement is the number of fish needed to spawn and perpetuate a run at a desired level.

Adult salmon returning to Washington migrate through both U.S. and Canadian waters and are harvested by fishermen from both countries. The 1985 Pacific Salmon Treaty, developed through cooperation by the tribes, state governments, U.S. and Canadian federal governments, and sport and commercial fishing groups, helps fulfill conservation goals and the right of each country to reap the benefit of its own fisheries enhancement efforts.

The treaty is implemented by the eight-member bilateral Pacific Salmon Commission (PSC), which includes representatives of federal, state and tribal governments. The PSC does not regulate salmon fisheries, but provides regulatory advice and recommendations, and a forum for the two countries to reach agreement on mutual fisheries issues. Three regional panels provide technical and regulatory advice to the PSC. In years when treaty agreements are not reached, the tribes have worked to ensure fisheries are still managed responsibly. Indian and non-Indian harvests are taken from a portion of the run surplus to escapement needs of the stock, or from a percentage of the overall run size.

In-season management between treaty tribes and the state is an ongoing process during the fishing season. While the agreements during NOF outline the goals of the upcoming fisheries, in-season planning is the process of how those goals evolve into on-the-ground fisheries. By looking at fishing effort, weather conditions and several other factors that could not be foreseen in preseason meetings, the tribes and the state shift fisheries to best protect the salmon resource. Each tribe regularly issues "emergency regulations," in addition to their annual fishing regulations, that reflect these changes. Emergency regulations, usually issued about a week or two in advance, outline the days that can be fished and the reason for the fishery. In addition to serving at the policy level on the PSC and its panels, tribal representatives also participate on the many committees and work groups providing technical support for the treaty's implementation. Tribes also conduct research as an integral part of the treaty's implementation.

2002 Tribal Fisheries Program Activities

Following is a synopsis of selected tribal fisheries management activities during the past year:

In Quilcene Bay, tribes have changed their harvest strategy in order to protect a threatened salmon stock. Hood Canal summer chum have been listed as threatened under the federal Endangered Species Act since 1999. But because of forward thinking by tribes, harvest on hatchery coho in Quilcene Bay has had little impact on the weak chum run.

Beginning in 1992, the tribes changed from using gill nets to more labor intensive beach seines. Beach seines, because of their smaller mesh, allow tribal fishers to safely release summer chum. Almost every year since the tribe has changed their harvest strategy, summer chum escapement in the Quilcene River has exceeded escapement goals.

Last year on the Snohomish River system, tribal fisheries managers along with their state counterparts, were able to reach the highest escapement numbers in almost 40 years. For decades, escapement on the Snohomish never reached above 6,000 chinook, but last year the co-managers saw nearly 8,000 spawning fish. The recent upswing in escapement was due to strict harvest controls which allowed a record amount of chinook to continue upstream to spawn.

On the Stillaguamish River, tribal researchers gather essential data in setting fishing seasons and creating a conservation plan for threatened chinook. By operating a smolt trap, a safe and effective device for collecting and counting juvenile salmon, the Stillaguamish Tribe will be able to fill a data gap in the river's juvenile salmon population. Before the tribe began operating the smolt trap, no one had much information on how many juvenile salmon live in the Stillaguamish River.

Particularly, the smolt trap will help the tribe piece together a complete picture of the chinook life cycle.

While information on adult chinook populations in the Stillaguamish have been around for years, it is only recently that juvenile behavior has been studied. The Stillaguamish smolt trap joins several others in the north sound. The Lummi Nation has operated a trap on the Nooksack River since 1994, and another in cooperation with the Nooksack Tribe on the south fork. The Tulalip Tribes have operated a trap on the Skykomish River since 2000.

Other FY 02 activities included:

- Improved hatchery functions through the Hatchery Reform Project.
- Implemented salmon habitat restoration, research, wild stock supplementation and other projects as part of the Pacific Coastal Salmon Recovery initiative.
- Conducted extensive data collection and monitoring necessary for Pacific Salmon Treaty implementation.
- Developed inter-tribal allocation plans to allow harvest opportunities for all tribes while protecting weak salmon runs.
- Closely monitored fishery harvest levels to ensure targets were not being exceeded and conducted in-season test fisheries to update run forecasts.
- Collected and compiled catch data in cooperation with the state for fisheries management planning and allocation.
- Conducted spawning surveys to confirm estimates of the number of salmon needed to sustain salmon runs at a desired level.
- Released more than 30 million healthy salmon and steelhead from tribal hatcheries in western Washington waters. Both Indians and non-Indians will harvest returning adults.
- Participated in cooperative enhancement projects with state and federal agencies, sportfishing groups and others.
- Tagged nearly 3.5 million juvenile hatchery salmon to obtain information on ocean survival, hatchery program effectiveness and other factors.
- Conducted salmon habitat restoration projects on rivers throughout western Washington, such as repairing and replacing culverts and placing logs into riverbeds to create rearing habitat.

For More Information

For more information about the natural resource management activities of the treaty Indian tribes in western Washington, contact the Northwest Indian Fisheries Commission, 6730 Martin Way E., Olympia, WA., 98516; or call (360) 438-1180. Visit the NWIFC home page at www.nwifc.org.

Tribal Participation In U.S./Canada Pacific Salmon Treaty Implementation

Introduction

Adult salmon returning to most western Washington streams migrate through both U.S. and Canadian waters, and are harvested by fishermen from both countries. For decades, there were no restrictions on the interception of returning salmon by fishermen of neighboring countries. Conservation goals and the right of each nation to reap the benefits of its own fisheries enhancement and restoration efforts were severely undermined as a result.

In 1985, after two decades of discussions, the Pacific Salmon Treaty (PST) was created through the cooperative efforts of the tribes, state governments, U.S. and Canadian governments, and sport and commercial fishing interests.

The Pacific Salmon Commission (PSC) was created by the United States and Canada to implement the treaty. The PSC establishes fishery and allocation regimes, develops management recommendations and provides a forum to reach agreement on mutual fisheries issues. An eight-member bilateral body that includes representatives of tribal, state and federal governments governs the PSC. Four regional panels composed of fisheries managers and industry representatives advise the PSC on policy matters. Technical support for both the Commission and Panels come from four technical committees, which are species-specific in focus.

As co-managers of the fishery resources in western Washington, tribal implementation of the PST is critical to achieve the shared goals of the PST in protecting, sharing and restoring salmon resources. In addition to serving at the policy level on the PSC and its panels, tribal representatives also participate on the many committees and work groups that provide technical support to implement the treaty.

Coded wire tagging programs provide important information to help implement the Pacific Salmon Treaty. *Photo: D. Preston*

Policy and Process

Successful implementation of the PST requires the tribes to develop, whenever possible, a unified position on issues addressed by the PSC. The treaty provides for tribal policy representation at all levels of the PSC structure. The western Washington tribes are fully engaged in PST implementation and process activities. Timely policy coordination between the tribes and the other U.S. PSC representatives is essential. This coordination and communication affords the U.S. Section and U.S. PSC representatives the flexibility necessary to be effective and efficient negotiators within the bilateral process.

NWIFC staff facilitate inter-tribal and inter-agency meetings, develop issue papers and analysis of strategies and negotiation options, and provide technical advice to the tribes and tribal PSC representatives. An extensive amount of time is devoted to ensure the tribes and their policy representatives are informed on the issues affected by the PST implementation process.

An NWIFC policy analyst serves as the "shadow" for PSC Commissioner Wm. "Ron" Allen, assisting him with policy issues pertaining to the PSC process. The policy analyst also prepares meeting announcements, briefing reports on key issues and other materials to keep concerned tribes informed.

Technical Implementation

NWIFC staff played key roles in the implementation of the Pacific Salmon Treaty in FY-02 through their involvement on several committees and working groups within the PSC structure. Staff held positions as U.S. chair of the Fraser Panel Technical Committee, and co-chair of the Joint Chum Technical Committee. Staff served on several other committees and working groups, including the Chinook Technical Committee, the Selective Fishery Evaluation Committee, the Coho Technical Committee, and the Working Groups on Mark-Recovery Statistics and Data Standards.

Research Projects And Data Gathering Activities

Fisheries research is an integral part of treaty implementation. The tribes have designated a substantial portion of their PST funding to conduct the necessary research, data collection, and fishery monitoring activities needed to manage salmon fisheries in the context of the PST.

Indicator Stock Tagging And Recovery Projects

Hatchery Indicator Stock Tagging And Recovery Program (NWIFC)

This program is responsible for tagging the tribal hatchery salmon stocks that are part of the coastwide PST chinook and coho exploitation indicator stock program. The intent of the program is to ensure that each wild or hatchery production stock grouping has a representative hatchery stock that is being coded wire tagged (CWT). Subsequent tag recovery information allows the PSC chinook and coho technical committees to develop fishery statistics used to monitor and evaluate the impact of fisheries on wild stocks and evaluate rebuilding programs. More than 2 million fish (1,530,000 chinook and 640,000 coho) from 11 tribal hatcheries are annually tagged for the program. This includes six chinook stocks and eight coho stocks.

Wild Indicator Stock Studies

Four of the chinook tag groups are derived from wild brood-stocking efforts. Since wild chinook smolts are too sensitive to capture and tag, the intent is to mark a group that represents wild fish to the best extent possible. In these studies, wild adult chinook spawners are captured and brought into a hatchery for spawning. The subsequent progeny are incubated, reared, and coded wire tagged. After tagging, the fish are transferred to an imprinting pond adjacent the native river, where the fish are released at a size and time consistent with the wild chinook migration. Indicator stock programs include:

- Skagit River Summer Chinook Indicator Stock Study (Skagit System Cooperative)
- Stillaguamish River Native Chinook Indicator Stock Study (Stillaguamish Tribe)
- Hoko River Fall Chinook Indicator Stock Study (Makah Tribe)
- Queets River Wild Fall Chinook Indicator Stock Study (Quinault Indian Nation)

All of these projects include spawning surveys to estimate escapement and recover CWTs.

One wild coho indicator stock study is conducted by the Quinault Indian Nation. Queets River wild coho smolts are annually captured and tagged to provide an indicator stock of naturally-produced coho salmon from the north Washington coast.

Tribal Projects: Stock Restoration Studies

Skagit River Chinook Restoration Project (Skagit System Cooperative: Upper Skagit, Swinomish and Sauk-Suiattle Tribes)

This project's purpose is to develop an analytical model to evaluate proposed actions to restore Skagit River chinook. The project will facilitate thorough evaluation of harvest, habitat, and hatchery actions to achieve the PST objective of stopping chinook declines.

Dungeness Chinook Tagging Project (Jamestown S'Klallam Tribe)

A captive broodstock program was started in 1991 to save Dungeness chinook from extinction. This multi-agency program is an experimental model for critical stock restoration and involves coded wire tagging captive broodstock offspring. Tag data will assist in assessing interception rates in all fisheries, evaluating different release strategies, and determining spawner success.

Natural Production And Habitat Assessment Studies

Natural Production Of Coho Smolts In The Queets River (Quinault Indian Nation)

The overall goal of this project is to bring together habitat and fish production data to guide enhancement actions to improve Queets River coho production. Specific objectives include analyzing habitat and production data from more than 10 years of studies in the Queets River basin; maintaining the long-term database on Queets coho production; and developing analytical tools to direct enhancement efforts in the basin.

South Puget Sound Coho Production Investigation (Squaxin Island Tribe)

This study evaluates outmigration timing of coho production from four south Puget Sound streams into Hammersly Inlet/Oakland Bay and Totten/Skookum Inlets. This study uses weirs and mark/recapture methodology to count outmigrating coho smolts. Data is used to estimate natural coho production, help develop a spawner/recruit relationship, and help refine spawning escapement goals.

Nooksack River Salmon Smolt Production Study (Lummi And Nooksack Tribes)

This project's objective is to estimate natural origin chinook smolt production in the Nooksack River. Outmigrating smolts are collected with a screwtrap. The trap data will be used to develop index production estimates and allow for investigations to determine if inter- and intra-specific co-occurrence is evident during migration. This information will also be used to monitor and assist with harvest management and Endangered Species Act recovery studies.

Quillayute River Natural Coho Production Study (Quileute Tribe)

The objective of this project is to monitor and evaluate Quillayute River natural fall coho production in conjunction with ocean and terminal fisheries. Data analysis from this and other projects provide wild escapement estimates, terminal and pre-terminal harvest rates, and spawner-recruit relationships.

Puyallup River Smolt Production Assessment (Puyallup Tribe)

The objective of this project is to assess natural smolt production in the Puyallup River system through the use of a smolt trap. The information will provide more accurate forecasting of natural adult production by removing both the variation in survival from egg to smolt and escapement estimation error from the forecast. The refined escapement estimates will provide for better estimates of stock productivity which will allow managers to calculate production based management and escapement objectives.

Spawning Escapement Evaluation Studies

Nooksack River Chinook Escapement Study (Nooksack Tribe)

This study is designed to estimate the escapement of spring chinook in the Nooksack basin. Age determination of adult escapement is estimated through the recovery of coded wire tags, otolith marks, and fish scales. Data collected will be analyzed for potential straying, hatchery/wild ratios, sex ratios, and migrational timing differences between different races of chinook.

Assessment Of Terminal Fishery Stock Composition And Stock Composition Of Chum Salmon In The Stillaguamish/Snohomish Region (Tulalip Tribes)

This project will augment coded wire sampling in terminal area fisheries to ensure sufficient effort is directed at the recovery of previously released tags from the Tulalip hatchery and other tags representing other production that may be contributing to terminal area fisheries. The project also involves a follow-up tissue sampling of chum salmon in fisheries and spawning grounds. Samples will be analyzed to determine the contribution of hatchery chum salmon to terminal area fisheries and natural spawning populations.

East Kitsap Coho Escapement Study (Suquamish Tribe)

Few escapement estimates of naturally spawning coho have been conducted in Puget Sound. The aim of this project is to determine potential fishery management constraints needed to address concerns for south Puget Sound wild coho stocks.

Hatchery Chinook Straying In The Nisqually Basin (Nisqually Tribe)

The Nisqually Tribe operates two chinook production facilities that annually produce more than 3 million smolts. The tribe wants to determine the extent and nature of adult hatchery chinook straying in the watershed and to what extent, if any, straying is impacting natural production.

Chinook Spawner Surveys In Lake Washington/Green River Basins (Muckleshoot Tribe)

The objective of this project is to improve the estimation of chinook spawning in the Lake Washington and Green River basins. The counting methodology used in this project will result in improved estimates of true natural escapement, which in turn should result in better return rate estimates and provide more information about wild and hatchery salmon interactions.

Estimate Total Natural Coho Spawning Escapement In Strait Of Juan de Fuca Streams (Makah Tribe and Lower Elwha Klallam Tribe)

The objective of this project is to use a stratified random methodology to estimate coho spawner abundance within the Strait of Juan de Fuca region. This methodology allows spawner surveys to utilize index reaches based upon habitat stratification.

Fishery Monitoring Projects

Monitoring And Sampling Of Hood Canal Commercial Coho Fisheries (Skokomish Tribe)

The ESA listing of Hood Canal summer chum means management actions may be needed to protect these stocks in Canadian and U.S. fisheries. This project determines run timing and incidental summer chum harvests during Hood Canal coho fisheries to help managers more effectively regulate fisheries to protect summer chum.

Estimation of Port Gamble S'Klallam Tribal Coho Stocks To Treaty and Non-Treaty, U.S./Canada Fisheries (Port Gamble S'Klallam Tribe)

This study involves sampling the treaty/non-treaty harvest of coho salmon in Hood Canal, Port Gamble Bay and the Strait of Juan de Fuca for coded wire tagged fish. The gathered data will be used to determine the contribution of Port Gamble net pen coho and other Hood Canal coho stocks to U.S. and Canadian fisheries.

Habitat Improvement Projects

Stillaguamish Culvert Analysis And Repair (Stillaguamish Tribe)

The purpose of this project is to increase coho production in the Stillaguamish watershed by inventorying and replacing habitat-blocking culverts. Problematic culverts will be inventoried in a database. Culvert projects will be prioritized in terms of costs/benefits to fish populations. Culvert repair work has largely been done in cooperation with other agencies and groups. Spawning surveys are scheduled to evaluate utilization of the opened habitat.

For More Information

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Tribal Groundfish Management

Introduction

Groundfish have always been important to the cultures of the treaty Indian tribes in western Washington. Today, harvest restrictions in place to protect weak wild salmon stocks – coupled with poor market conditions – have made groundfish species such as halibut, sablefish, Pacific cod, dogfish and rockfish increasingly important to the treaty Indian tribes.

Unfortunately, just as coastal treaty tribes are beginning to fully access some of their treaty-reserved harvest of groundfish, several rockfish species have declined sharply. As a result, severe harvest restrictions have been implemented, threatening the cultural, spiritual and economic vitality of coastal treaty tribes.

Background

Treaty reserved fishing rights upheld by the courts in *U.S. vs. Washington* established the tribes as co-managers of the groundfish resource. The tribes work closely with the State of Washington and U.S. government to develop and implement species conservation plans for all groundfish stocks in Puget Sound and along the Pacific coast.

Halibut are managed through the International Pacific Halibut Commission (IPHC), a bilateral management entity established in 1923 by the governments of the United States and Canada. The mandate of the organization is to study and preserve the stocks of Pacific halibut within the territorial waters of both nations.

IPHC scientists assess the halibut stocks and the IPHC governing body develops a total allowable catch for stocks in various fishing areas along the Pacific coast from Alaska to northern California.

A Quileute tribal fisherman unloads a catch of rockfish. *Photo: D. Preston*

Fisheries for groundfish species such as sablefish, whiting and rockfish – in waters 3-200 miles off the West Coast – are managed through the Pacific Fishery Management Council (PFMC) under the U.S. Department of Commerce. The council includes representatives of the National Marine Fisheries Service (NMFS), the non-Indian commercial fishing industry, representatives of the non-Indian recreational fishing industry, the states of Washington, Oregon, Idaho and California, as well as a tribal representative.

NMFS scientists assess stocks annually. Various advisory committees analyze the assessments and develop catch recommendations that are passed on to the council, which develops quotas for Indian and non-Indian fisheries.

The Status Of Groundfish Stocks In Western Washington

While some groundfish species are generally healthy, such as halibut, coastal Pacific cod and several species of flatfish, others are severely depressed, including a number of coastal rockfish species.

In 2000, the National Marine Fisheries Service completed a status review of six Puget Sound groundfish stocks in response to a petition to list the stocks as "threatened" under the Endangered Species Act. The species included Pacific hake, Pacific cod, walleye pollock and three species of rockfish. None were found to be in need of protection under the ESA.

The agency examined a number of factors likely responsible for the species' decline, including harvest, habitat degradation, climate changes, and marine mammal predation. Although until the early 1980s there was a commercial Puget Sound hake fishery, the remaining species are typically targeted by sport fishermen.

A number of rockfish stocks along the Pacific Coast have been in sharp decline in recent years. In particular, depressed populations of yelloweye, bacaccio and canary rockfish have led to severe coastwide management restrictions for both commercial and recreational fisheries.

Tribal Groundfish Management

Tribal communities, with limited opportunities for economic diversification, already have been devastated over the past two decades by declining salmon populations and poor market conditions. The groundfish cutbacks come at a time when the coastal tribes are just beginning to fully access some of their treaty-reserved harvest of groundfish stocks.

Washington coastal treaty Indian tribes – Makah, Quileute, Hoh and the Quinault Indian Nation – are experiencing conservative quotas and conducting restrictive fisheries to ensure protection of weak groundfish stocks while allowing harvest of healthy groundfish populations.

The tribes are continuing to implement strict "trip limits" on their fishermen that limit the number of fish from depressed groundfish stocks that can be harvested incidentally during fisheries on healthy fish populations. For example, tribal fishermen targeting halibut, sablefish or whiting are allowed only a small incidental harvest of a weak groundfish stock before being required to stop fishing in a particular area.

Although the tribes will remain well within their projected impacts to weak groundfish stocks this year, they are considering additional time and location restrictions to further minimize those impacts. All of the potential impacts from the proposed tribal groundfish fisheries fall well within the guidelines being set by the PFMC.

As a manager of the groundfish resource with the federal and state governments, the tribes want to work together to address a significant lack of data on groundfish populations. The data gaps result in the need for restrictive fisheries coastwide, regardless of regional differences in the health and abundance of some rockfish stocks.

Better data enables the tribes to make better management decisions. It also enables the tribes to tailor their management approach to take into consideration the differences that exist between groundfish populations from different areas along the coast.

Federal Government Groundfish Management

The PFMC manages the various groundfish species as a single, coastwide management unit with harvest levels set either as a single quota or as two regional quotas. This has led to disproportionate landing trends along the Pacific coast. Under this management approach, harvest is not directly related to the abundance of targeted species in a particular area. Consequently, harvest off the California coast can lead to increased harvest restrictions off Washington.

The design of resource assessment efforts also has hampered timely management response to severe population declines. The majority of stock assessment estimates are based on coastwide trawl surveys conducted every three years. Constraints associated with a coastwide management unit approach, coupled with the large number of species involved, has resulted in only a portion of the stocks being assessed in a three-year period.

The irregular assessments, combined with differences in life history characteristics of some species, has led to critical data gaps for some species. Some rockfish species such as yelloweye, for example, cannot be fully assessed because their preferred habitat is rocky sea bottom, which is inaccessible to NMFS trawl survey gear.

Tribal, state, and federal fishery managers currently are discussing ways to restructure West Coast groundfish fisheries to address concerns over the status of yelloweye rockfish. However, recent catch data from Washington fisheries indicate that the yelloweye rockfish decline off the outer coast is not as severe as the declines being observed in Oregon and California waters. The ability to shape a regional management response in concert with regional abundance is hampered by lack of data caused by the existing structuring of stock assessment surveys. As a result, the management responses under consideration for the tribes' usual and accustomed fishing areas off the Washington coast are actually being driven by stock status assessments from Oregon and California.

A transition to a more regional or ecosystem-based management approach is needed for groundfish. Management actions must be tailored to resource levels and related fisheries in particular areas. Regional management capability is required for effective resource management and more equitable distribution of impacts between fisheries. Tribal harvest of yelloweye rockfish has been minor, but this fish is taken consistently in fisheries directed at other healthy groundfish species, such as halibut. As a result, the application of coastwide proportional reductions on yelloweye rockfish has a disproportional effect on tribal fisheries.

Tribal Program Needs

Currently, the four coastal Washington treaty tribes do not receive funds specifically for groundfish management activities. At the same time, the coastwide decline in groundfish stocks and resulting increased regulatory constraints are exponentially increasing the management burden on tribal fishery programs.

Although the tribes have begun to formulate some of the necessary management tools and assessment of groundfish resources, inadequate staffing and funding limits have prevented development of fully functional tribal groundfish programs. Full development of tribal groundfish programs will require additional funding to augment existing fishery management activities.

Tribal needs are divided into resource assessment and base program augmentation needs. Resource assessment needs address the management crisis resulting from the coastwide decline of groundfish, and yelloweye rockfish in particular. The objective is to develop coordinated regional management capability for groundfish resources located within the tribes' combined usual and accustomed fishing areas. Base program augmentation needs address requirements for development of effective groundfish management programs.

Tribal resource assessment needs include:

Stock Structure and Status Assessment – The initial proposal is to assess stock structure and to conduct an abundance survey of the rocky, non-trawlable rockfish habitat between Leadbetter Point and Cape Flattery off the outer Washington coast. The objective is to develop an accurate assessment of rockfish populations off the Washington Coast from which future management decisions can be based.

Port Sampling – A greater intensity of port sampling is required with the shift toward regional-specific and species-specific rockfish management. Tribal rockfish landings will require species differentiation and age composition sampling. This increased catch information is essential to adequately address the current decline in rockfish populations.

Fishery Observers – The transition to greater regional- and species-specific management increases the demand for fisheries specific information. Accurate fishery data regarding species catch rates by time, area, and gear type will be required. Such catch per unit effort information is essential for determining regional estimates for abundance, as well as harvest and by-catch rates.

Tribal base program augmentation needs include:

Management Program – The establishment of a fully functional groundfish management program is necessary to ensure that the coastal tribes can effectively participate as resource managers in the federal PFMC groundfish management process. Additional qualified staff will help the tribes more fully participate in pre-season, in-season, and post-season groundfish management activities.

Enforcement – The establishment of an adequate tribal enforcement program would complement the increased groundfish emphasis. Movement toward species-specific rockfish management increases the need for a greater level of intensity in enforcement activity. A greater enforcement presence will be required to monitor compliance with increased trip limits and landing restrictions.

Research – Dedicated program funds are required to continue investigations of possible management responses to address changing resource conditions. Current pilot studies are exploring possible bycatch reduction methods. Base funding is required to fully assess and complete studies regarding the effects of depth, time, area, and bait type on reducing bycatch rates on species of concern. In addition, there is need for a detailed mapping of groundfish habitat within the tribal usual and accustomed fishing areas.

Conclusion

Current tribal groundfish management funding is inadequate, particularly in light of the added co-management responsibilities placed upon the tribes with the transition toward species-specific management of rockfish. Additional funding is necessary to fully implement the tribes' rights to harvest groundfish, and to conserve the groundfish resource within their usual and accustomed fishing areas.

Specialized staff is needed to successfully develop effective groundfish management programs. Groundfish biologists, technicians, certified fisheries enforcement personnel, statisticians and other staff are all critical to an effective groundfish management program. Federal assistance to the tribes is needed to enable the tribes to participate fully as co-managers of the groundfish resource and to ensure the sustainable management of groundfish off the Washington Coast. Regional management capability that is based upon, and responsive to, area-specific population abundance is essential to the achievement of these goals.

For More Information

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Tribal Shellfish Management

Introduction

Shellfish have been a mainstay of western Washington Indian tribes for thousands of years. Clams, crab, oysters, shrimp, and many other species were readily available for harvest year 'round. Because large amounts could be harvested, cured, and stored for later consumption with relative ease, shellfish were an important source of nutrition for tribes – nearly as important as salmon.

Shellfish remain important for economic, subsistence, and ceremonial purposes. The rapid decline of many western Washington salmon stocks, due in large part to habitat loss from the region's burgeoning human population, has pushed shellfish to the forefront of many tribal economies.

The tribes have two distinct types of shellfish harvests – commercial and ceremonial/subsistence. Shellfish harvested during a commercial fishery are sold to licensed shellfish buyers who either sell shellfish directly to the public or to other commercial entities. Tribes collect taxes from tribal members who sell shellfish. Those taxes are used to help pay for tribal natural resource programs. Ceremonial and subsistence harvests are intended for tribal use only. Shellfish has a central role in tribal gatherings.

Treaty Shellfish Rights

As with salmon, the tribes' guarantee to harvest shellfish lies within a series of treaties signed with representatives of the federal government in the 1850s. Language pertaining to tribal shellfish harvesting is included in this section:

Bob Schuyler, Upper Skagit Tribe, reels in a crab pot during a Skagit System Cooperative test fishery to assess the Dungeness crab resource. *Photo: J. Shaw*

"The right of taking fish at usual and accustomed grounds and stations is further secured to said Indians, in common with all citizens of the United States; and of erecting temporary houses for the purposes of curing; together with the privilege of hunting and gathering roots and berries on open and unclaimed lands. Provided, however, that they shall not take shellfish from any beds staked or cultivated by citizens."

– Treaty of Point No Point
Jan. 26, 1855

In exchange for the peaceful relinquishment of what is today most of western Washington, the tribes reserved the right to continue to harvest finfish and shellfish from all of their usual and accustomed grounds and stations. The tribes were specifically excluded from harvesting shellfish from areas "staked or cultivated" by non-Indian citizens.

Clamming was dominated by the tribes well into the 1920s, but as tideland continued to be purchased by non-Indians, tribes were slowly excluded from their traditional shellfish harvest areas.

Tribal efforts to have the federal government's treaty promises kept began in the early 1900s. The United States Supreme Court ruled in *U.S. vs. Winans*, that when a treaty reserves the right to fish at all usual and accustomed places, the state may not preclude access to those places.

In 1974, U.S. District Court Judge George Boldt ruled the tribes had reserved the right to harvest half of the harvestable salmon and steelhead in western Washington. Through the "Boldt Decision," upheld by the U.S. Supreme Court in 1979, tribal and state fisheries staff have worked together to develop fisheries regimes to ensure harvest opportunity for Indian and non-Indian alike. This new atmosphere of cooperative natural resources management gave the tribes hope that their treaty-reserved rights to shellfish harvest and management could be restored. Talks between the tribes and the state began in the mid-1980s, but were unsuccessful. In 1989, the tribes were forced to file suit in federal court to have their treaty shellfish harvest rights restored. Years of negotiations were unsuccessful, and the issue went to trial in May 1994.

The Rafeedie Decision And Implementation Plan

After hearing testimony from tribal elders, biologists, historians, treaty experts, as well as testimony from private property owners and non-Indian commercial shellfish growers, Federal District Court Judge Edward Rafeedie followed in the footsteps of the Boldt Decision. He ruled the treaties' "in common" language meant that the tribes had reserved harvest rights to half of all shellfish from all of the usual and accustomed places, except those places "staked or cultivated" by citizens – or those that were specifically set aside for non-Indian shellfish cultivation purposes.

"A treaty is not a grant of rights to the Indians, but a grant of rights from them," Rafeedie wrote in his December, 1994 decision, adding that the United States government made a solemn promise to the tribes in the treaties that they would have a permanent right to fish as they had always done. Rafeedie ruled all public and private tidelands within the case area are subject to treaty harvest, except for shellfish contained in artificially created beds. His decision requires tribes planning to harvest shellfish from private beaches to follow many time, place, and manner of harvest restrictions.

Since the Supreme Court's final refusal in 1999 to hear the case, several parties, including the tribes and shellfish growers, have been working on an implementation plan under the guidance of Seattle federal court judge Robert Lasnik. Under the implementation plan, each party would have a clear and working understanding of the Rafeedie Decision and how it affects their everyday operations.

The tribes have moved past litigation and into cooperative co-management of their treaty-reserved resources with the State of Washington. Tribal shellfish managers have developed harvest management and supplementation plans, and harvest data is collected and shared with other tribes and the state.

Examples of cooperation can be found throughout the Puget Sound and coastal region. On Hood Canal, for example, tribes have reached harvest agreements with private beach owners and the U.S. Navy. On northern Puget Sound, tribal diggers are harvesting shellfish alongside non-Indians on Hat Island, a small, largely privately owned island near Everett. For thousands of years, the island has been a culturally significant place for the Tulalip Tribes to harvest shellfish, but in recent decades, tribal members were harassed when they attempted to harvest there. On Hat Island and elsewhere, some property owners are working with tribes to develop management agreements so scientific population surveys, harvest planning and possible cooperative shellfish enhancement activities can occur.

FY 02 Activities

Preliminary data for 2001, the most recent available, indicate that treaty tribes in western Washington harvested approximately 750,000 pounds of manila and native littleneck clams; 2.2 million pounds of geoduck clams; 1.1 million pounds of oysters; 5.2 million pounds of crab; and 115,111 pounds of shrimp. These fisheries occur throughout Washington coastal areas and Puget Sound. The tribes and state have entered into 27 different regional management plans for a variety of shellfish species. Each species has unique management requirements to ensure biologically sound harvests occur.

Following are several examples of treaty tribal shellfish management activitites during FY 02:

Point No Point Treaty Council: Port Gamble S'Klallam, Jamestown S'Klallam, Lower Elwha Klallam and Skokomish Tribe

Sometime last winter, hundreds of thousands of clams on three popular beaches in north Hood Canal inexplicably died. The die off occurred on three cornerstone beaches for area treaty tribes, compelling them to decrease harvest by up to 40 percent.

"We're going to slow down our harvesting, because these beaches are very important to us," said David Herrera, Skokomish Tribal Fisheries Manager. Tribal and state managers haven't determined the exact cause of the death on the three beaches: Quilcene, Dosewallips and Duckabush. What likely happened was an extremely low tide last winter that exposed the clams to frigid air. Dead clams are noticeable because they become unable to hold themselves closed.

"Because of the nature of treaty harvests, large die-offs like this affect tribal members more than recreational harvesters. Tribal harvests only occur around days of extreme low tides. The amount of money a harvester makes in that one day is based on how many clams one can harvest. If there are fewer clams, people aren't going to make as much money harvesting," said Herrera.

"We curtailed our harvesting opportunities to preserve the remaining clams," said Herrera. "Even though we're sacrificing a lot, we need these beaches to have harvestable amounts of clams available in the future."

"The tribes, as co-managers with the state, believe in providing the greatest security possible to shellfish," said Herrera. "The tribes are the original fisheries managers in western Washington; we have always worked for sustainable harvests."

Skagit System Cooperative: Upper Skagit, Sauk-Suiattle and Swinomish Tribes

Recreational crabbing is a pursuit enjoyed by hundreds of families throughout the Pacific Northwest. Commercial crabbing is an industry that sustains tribal and non-tribal enterprises alike. Neither could take place, however, without measures to ensure the sustainability of the shellfish resource – measures like the crab test fisheries conducted by the Skagit System Cooperative (SSC).

The natural resource consortium of the Swinomish, Upper Skagit and Sauk-Suiattle tribes, SSC conducts test fisheries to determine the abundance of Dungeness crab in a portion of northern Puget Sound as well as the suitability of crab for harvest. Before the fishery can be opened, the health and vitality of the resource must be assured.

Test fishery crews haul in crab and test the shell of each for hardness. The less resistance a crab's shell offers, the more full the shell is with meat. This tells the SSC crew what percentage of the animals are ready to be harvested.

The data gathered by SSC is shared with the state Department of Fish and Wildlife, and is key to the co-managers' abilities to make informed decisions on when and where to open crab for harvest.

Suquamish Tribe

The Suquamish Tribe is training 30 tribal members and staff in shellfish aquaculture skills. This project will provide a regular supply of clams and oysters to the tribe for cultural and subsistence harvest, while teaching aquaculture skills that can be used on personal tidelands or potentially in the shellfish aquaculture industry.

Many of the local beaches clean enough for harvest don't naturally support large populations of shellfish. For that reason, the tribe is turning to enhancement and aquaculture, training some of its members to turn what are currently barren beaches into thriving oyster and clam beds.

In addition to elements of shellfish biology, water quality, and enhancement techniques, the training will include workshops in which tribal elders will communicate the Suquamish Tribe's cultural connection to shellfish. Lessons in the traditions of Suquamish culture will include storytelling, traditional dances and construction of traditional shellfish harvest baskets from cedar root, as well as lessons in the Lushootseed language.

Tribal members enrolled in the program will take advantage of a wide range of learning opportunities, from trips to shellfish operations to "on the beach" work developing an actual enhancement project.

Other activities during FY 02 included:

- Providing timely harvest regulations to all affected parties.

- Conducting on-site beach surveys.
- Monitoring all tribal shellfish harvests.
- Seeding beaches to enhance clam populations.
- Undertaking major co-management efforts with the State of Washington in developing regional harvest plans for geoduck fisheries. These plans include agreements on monitoring harvest, compliance agreements, harvest methodology, and enforcement cooperation. Improvements in these areas will continue throughout the year.
- Testing water quality and shellfish, and obtaining certification from the state Heath Department before opening beaches to harvest. Tribes have a separate agreement with the Washington State Department of Health for water testing to ensure harvests can safely occur. Tribes conduct regular monitoring of beaches to ensure they are safe for harvest.
- On the national level, tribal and NWIFC representatives were active participants in the Interstate Shellfish Sanitation Conference (ISSC). The national organization of shellfish-producing states develops and recommends shellfish sanitation regulations to the federal Food and Drug Administration.
- On the state level, tribes participated on the Shellfish Advisory Committee, a group of tribal representatives, legislators, local governments and private shellfish growers that advises the state Department of Health and legislative committees on important legislation affecting the shellfish industry. This forum has proven to be highly effective in influencing state legislation to protect shellfish resources.

Conclusion

While tribes have made great strides in shellfish management following the Rafeedie Decision, they are seriously hampered in their efforts by a severe lack of funding.

Although tribes have begun to formulate some of the necessary shellfish management tools, inadequate staffing and funding prevent the tribes from realizing their full potential. Specialized staff are needed to successfully develop effective shellfish programs. Shellfish biologists, certified technicians, enforcement personnel and other staff are all critical to effective shellfish management plans. Expertise in statistics, biometrics and health certification also is necessary.

For hard-shell clam management, additional funding is needed for improving a data management system for catch reporting and population assessment and to assist enhancement efforts. Research on methodologies for population assessment and techniques is especially needed.

Public intertidal areas that are jointly managed by the tribes and state would benefit from increased funding by providing additional resources to manage and enhance the publicly shared areas. Current tribal and state efforts to move forward on enhancement activities in these areas are hampered by inadequate funding.

For shrimp and crab, data gathering is a critical need. Little research has been done to gauge shrimp and crab populations. Data collection and research are needed to increase knowledge of these fisheries with an eye toward development of in-season population assessment methodologies.

Dungeness crab, for example, provide important fisheries for Indian and non-Indian harvesters. True resource conservation, however, has been difficult to achieve because of a lack of information on crab abundance. Adequate management funds are needed for data collection and analysis, improved survey systems and effective enforcement.

Although efforts have been made to update red urchin data in the Strait of Juan De Fuca, more data is still needed on “new” tribal fisheries, such as sea cucumbers, crawfish and other lesser known species.

The future of western Washington’s thriving shellfish resource relies upon the continuation of existing cooperative management between the tribes and their state counterparts.

For More Information

For more information about the natural resource management activities of the treaty Indian tribes in western Washington, contact the Northwest Indian Fisheries Commission, 6730 Martin Way E., Olympia, WA 98516; or call (360) 438-1180. Visit the NWIFC home page at www.nwifc.org.

Tribal Wildlife Management

Introduction

Wildlife resources have always been central to the cultures of the treaty Indian tribes in western Washington. Elk, deer, waterfowl and other wildlife have long provided a source of food and clothing for Indian people.

As with salmon and shellfish, the tribes reserved the right to harvest wildlife in treaties with the U.S. government:

"The right of taking fish at all usual and accustomed grounds and stations is further secured to said Indians in common with all citizens of the Territory, and of erecting temporary houses for the purpose of curing, together with the privilege of hunting and gathering roots and berries on open an unclaimed lands; provided, however, that they shall not take shellfish from any beds staked or cultivated by citizens."

- Treaty of Point Elliott, 1855

Little has changed over the centuries. The ancient link between the tribes and wildlife remains strong. Wildlife still provides important nutrition to Indian families on reservations where unemployment can run as high as 80 percent. As traditional foods, deer, elk and other wildlife remain important elements of feasts for funerals, naming ceremonies and potlatches. Hides, hooves, antlers, feathers and other wildlife parts are still used for traditional ceremonial items and regalia.

Treaty Indian tribes in western Washington work to make sure wildlife resources remain healthy. *Photo: D. Preston*

Unfortunately, the quality and quantity of the habitat upon which the wildlife resources in western Washington depend for their survival are declining rapidly. Where virgin forests once stood there is now urban sprawl. Deer and elk herds have been squeezed into smaller and smaller areas of degraded and fragmented habitat.

Concurrently, the ability of tribes to exercise their treaty-reserved right to hunt on open and unclaimed lands has also been dramatically impacted. Tribal members have been forced to hunt farther and farther from home to harvest their treaty-reserved share of wildlife resources.

Overlaid on this background has been a series of legal skirmishes as well as state and federal court rulings, most of them favorable to the tribes, addressing the tribal treaty hunting rights.

The treaty Indian tribes in western Washington, as responsible co-managers of the wildlife resource, work cooperatively with the State of Washington, citizen groups and others to manage the wildlife resources. However, the tribes face continual challenges to their treaty hunting rights.

Historically, the tribes have fared well in court cases involving their treaty-reserved rights, beginning in 1974 with *U.S. vs. Washington*, which re-affirmed the tribes' treaty right to up to half of the harvestable number of salmon returning to Washington waters. A similar ruling was handed down in 1994 regarding tribal treaty shellfish harvest rights. Both rulings have been upheld by the U.S. Supreme Court.
Because tribes do not hunt commercially, conflicts between tribes, the state and non-Indian hunters did not develop as early as with fishing. Further, wildlife populations were larger because more high quality habitat was available. But explosive growth in western Washington over the past several decades has reduced the amount of available habitat for wildlife, and has forced tribal members to hunt farther afield in order to exercise their treaty right.

State and federal courts have consistently upheld the right of treaty tribes to hunt on open and unclaimed land free of state regulation. The courts have generally ruled that lands such as National Forests, which have not been set aside for uses incompatible with hunting, are open and unclaimed. The courts also have ruled that in order to apply a state regulation to a tribal member with a treaty hunting right, the state must prove that the regulation is both reasonable and necessary for conservation purposes.

In 1999 the U.S. Supreme Court upheld the tribal treaty right to hunt on state lands free of state regulation in *Minnesota vs. Mille Lacs Band of Chippewa Indians*. The ruling stemmed from hunting, fishing and gathering rights reserved by the tribe in an 1837 treaty with the U.S. government.

The Washington State Supreme Court made a similar ruling in 1999 in *State vs. Buchanan*. Donald Buchanan, a Nooksack tribal member, was charged in 1995 with harvesting two elk during a closed season at the state-owned Oak Creek Wildlife Area. Two lower courts ruled Buchanan was simply exercising his treaty-reserved right to hunt on open and unclaimed land when he harvested the two elk.

The state Supreme Court ruled that treaty tribes may hunt within original tribal lands and traditional areas and also ruled that the state-owned Oak Creek Wildlife Area was open and unclaimed land within the meaning of the treaties. The court also threw out the state's argument that the treaty hunting right was eliminated when Washington became a state. As in the *Mille Lacs* case, the court said that only the U.S. government may abrogate a treaty right.

While tribes prefer to cooperate with the State of Washington in the implementation of their treaty hunting rights and responsibilities as co-managers of the wildlife resources, they realize that they may be forced to seek a clarification of their treaty hunting rights through the federal courts.

The treaty Indian tribes in western Washington have a long history of co-managing natural resources with the State of Washington. The tribes and state have had numerous successes in implementing cooperative natural resource management efforts to protect, restore and enhance the productivity of natural resources in Washington.

In a recent policy decision, the Washington Fish and Wildlife Commission recognized that "the preservation of healthy, robust and diverse fish and wildlife populations is largely dependent on the state and tribes working in a cooperative and collaborative manner."

It is important to understand that tribal hunters do not hunt for sport. Hunting is a spiritual and personal undertaking for each hunter. All tribes prohibit hunting for commercial purposes.

Treaty tribal hunters in western Washington account for only about 1 percent of the total combined deer and elk harvest in the state. According to statistics for 2001-2002, tribal members harvested only 640 deer and 307 elk – about 1 percent of the total deer and elk take. This compares with 41,011 deer and 7,705 elk harvested by non-Indian hunters in Washington.

Most tribal hunters do not hunt only for themselves. The culture of tribes in western Washington is based on extended family relationships of parents, grandparents, aunts, uncles, cousins and other relatives. A tribal hunter usually shares his game with several families. In some cases, tribes may designate a hunter to harvest one or more animals for elders or families who cannot provide for themselves.

As a sovereign government, each treaty tribe develops its own hunting regulations and ordinances governing tribal members. Each tribe also maintains an enforcement program to ensure compliance with tribal regulations. As responsible managers, tribes know the value of enforcement as a management tool. Tribes have limited hunting opportunity for tribal members when, because of budgetary constraints, they have lacked resources to adequately enforce their regulations. The ratio of tribal enforcement officers to treaty hunters is higher than the ratio of state enforcement officers to non-Indian hunters.

Like the State of Washington, tribes set seasons based on sound biological information about the ability of the resource to support harvest. In the northern Puget Sound region, for example, tribes have for the past six years prohibited hunting on the Nooksack elk herd because the herd's population is too low. Loss and degradation of habitat are the primary causes of the herd's decline.

Before opening any area to hunting, many tribes forward their regulations to WDFW for review and comment. Tribes also share their harvest data with the department.

Tribal hunters are licensed by their tribes and must obtain tags for each big game animal they wish to hunt. If a hunter is successful, he must tag the animal and submit a harvest report to the tribe. Unlike the state system of voluntary reporting, tribal members are required to report all harvest. All tribal hunters carry photo identification cards with their name, date of birth, tribal affiliation and other information.

If a tribal member is found in violation of tribal regulations, he is cited into tribal court. Penalties can include fines and loss of hunting privileges. In most cases, tribal hunting regulations address the same harvest and safety concerns as state rules, such as prohibiting the carrying of loaded firearms in vehicles.

A number of tribes conduct hunter education courses, aimed especially at young tribal members, to ensure their hunters are safe when exercising their treaty right. Students are taught how to handle firearms, ethical considerations and the reasons behind tribal hunting regulations. Cultural aspects of hunting, as well as treaty hunting rights, also are covered in the classes.

Collectively, the tribes have created the Inter-tribal Wildlife Committee of the Northwest Indian Fisheries Commission (NWIFC) to provide a forum for addressing inter-tribal issues. The committee also provides a unified voice in discussions with state and federal wildlife managers.

Tribes conduct comprehensive management programs to preserve, protect and restore the wildlife resources in western Washington. While treaty hunting rights are crucial to the tribes, tribal wildlife management projects take a broader perspective – focusing on an ecosystem-based approach to protecting wildlife.

FY 02 Tribal Wildlife Management Activities

Following are examples of the types of management projects conducted by tribes during FY 02:

- Declining wildlife herds are culturally and spiritually devastating to Washington's treaty Indian tribes. But the Upper Skagit Tribe is working to ensure that flagging goat and elk populations come back strong.

The tribe received a $19,500 grant from the Bureau of Indian Affairs to support its wildlife restoration programs in June. The bulk of the funds, administered under BIA's wildlife grant program, will enable the tribe to continue its annual herd population studies and, for the first time, augment the elk population by transferring out of area animals into the Nooksack elk herd. The rest of the money will assist the tribe's mountain goat study in the Mt. Baker area, scheduled to begin in August.

"For thousands of years, wildlife like the elk and the goat have been central to our way of life," said Scott Schuyler, Upper Skagit Tribe natural resources policy coordinator. "Over the past several years, we have been working at formulating truly comprehensive elk and goat recovery plans. Now, we are beginning to put those plans into action."

Historically, members of the Nooksack, Lummi, Swinomish and Upper Skagit tribes all hunted animals in this particular herd. Ultimately, returning the herd to sustainable levels that can meet the harvest needs of both Indians and non-Indians is the Upper Skagit Tribe's goal.

- Tribal hunters are working with the State of Washington to check the potential spread of chronic wasting disease in deer and elk.

Representatives from treaty tribes in Western Washington were trained in October on procedures designed to identify chronic wasting disease in deer and elk. Chronic wasting disease, a wildlife ailment affecting the central nervous system, is a progressive and always fatal illness related to mad cow disease.

"No one is more concerned about the health and long-term viability of deer and elk stocks than the tribes," said Todd Wilbur, chair of the Northwest Indian Fisheries Commission's Inter-tribal Hunting Committee. "We want to make sure we stop any potential health problems within herds before they start in earnest."

Tribes and the state are out in front of the problem. To date, no deer or elk with chronic wasting disease have been found in Washington – though the disease has been tracked in nine states and two Canadian provinces since first being discovered in Colorado in 1967.

"Even though this disease hasn't shown up in our herds here yet, we want to be vigilant," said Wilbur. "Hopefully, we can prevent this from becoming a problem here."

- Biologists from the Stillaguamish Tribe and the Tulalip Tribes are painstakingly documenting every encounter with the unique and rare marbled murrelet, a threatened seabird that needs healthy forests to survive.

These surveys are not only key to understanding the murrelet, but could have a significant impact on forest practices and salmon recovery in Washington. Washington's murrelet populations are listed as "threatened" under the federal Endangered Species Act and listed as "threatened" under state law in California, Oregon and Washington.

"Once we can prove that these birds occupy a given forest, that forest can be protected," said Jen Sevigny, a biologist with the Stillaguamish Tribe. Along with husband Mike Sevigny, a biologist with the Tulalip Tribes, Sevigny has tracked various bird species in six states. This time, their surveys are a race against the clock to preserve rapidly dwindling second-growth forest habitat.

Since the Stillaguamish and Tulalip tribes share much usual and accustomed fishing, hunting and gathering territory, the partnership was ideal. Because the bird relies on two distinct ecosystems for survival, the murrelet is a key indicator species. Any habitat disruption, whether on the coast or in the forest, can have catastrophic effects on the bird.

"The murrelet shows us how interconnected our natural resources are, and how important protecting habitat is to wildlife. For example, if they result in watersheds being protected, these surveys will have direct benefit to salmon and other species as well," said Jen Sevigny.

Other Activities

Tribes have created a technical working group through the NWIFC to share findings from research projects and address wildlife management issues common to all of the tribes.

An NWIFC wildlife biologist assists tribes in many aspects of natural resource management. One of the wildlife biologists's primary roles is maintaining and coordinating the statewide inter-tribal wildlife harvest database. Now in its fifth season, the database has become an important tool in tribal wildlife management, and is also shared with state and federal agencies. Species, sex, location of harvest and other information is entered into the database to aid tribes in meeting their management goals. The wildlife biologist coordinates collection of all tribal game harvest data, consults with individual tribes on their data collection systems, and provides technical analysis of statistics contained in the harvest database.

Tribal harvest regulations are collected annually by the wildlife biologist and cataloged before being distributed to tribes, as well as state and federal agencies. The biologist also coordinates meetings of the Inter-tribal Wildlife Committee, as well as joint meetings with the State of Washington, federal agencies, local governments, legislative organizations and community groups.

The NWIFC biologist plays a key role to those tribes who currently do not have a wildlife biologist on staff, providing technical assistance for management decisions, development of wildlife management plans, and proposed legislation that may impact tribal programs. For tribes with wildlife biologists on staff, the NWIFC provides assistance with field work, design and implementation of research projects, and other services.

Conclusion

The treaty Indian tribes in western Washington possess an unbreakable cultural and spiritual bond with the wildlife resources of the region. That bond is bolstered by an indisputable treaty-reserved right to harvest these resources for their needs. As responsible co-managers of those resources, with the State of Washington, the tribes' primary goal is to ensure the health of these resources for future generations.

For More Information

For more information about the natural resource management activities of the treaty Indian tribes in western Washington, contact the Northwest Indian Fisheries Commission, 6730 Martin Way E., Olympia, WA 98516; or call (360) 438-1180. Visit the NWIFC home page at www.nwifc.org.

Coordinated Tribal Water Quality Program

Introduction

The Coordinated Tribal Water Quality Program (CTWQP) was developed by the 27 federally recognized tribes in the State of Washington in 1990. Tribes have worked with the U.S. Environmental Protection Agency (EPA) to implement the CTWQP for the past 12 years. EPA funds are enabling the tribes to conduct water quality programs critical to the management of their treaty-protected resources, and to provide for the health of their members and the environment.

The base level funding requirement for the Coordinated Tribal Water Quality Program is $3.1 million per year. This provides $110,000 to each of the 26 tribes for their individual programs, and $240,000 for statewide program coordination. This funding structure provides for extremely low overhead with 94.5 percent of the funds going to on-the-ground activities and just 5.5 percent for coordination.

Funding for this program for the past five years has come from Senate appropriations aimed at Northwest tribes to supplement the EPA Indian General Assistance Program. Without these funds, the program would no longer exist because base level funding has not been provided for nearly a decade.

Brent Ramsey, Quileute Tribe, gathers water quality data near the mouth of the Quillayute River. *Photo: D. Preston*

The CTWQP is designed to provide base-level staff infrastructure for tribes to organize and begin addressing the water quality concerns that are threatening their reservations and treaty-protected resources. Water pollution in Washington threatens the health of tribal members and their treaty resources without respect to political boundaries. Tribal jurisdictions interlock with many other jurisdictions, including some of the most densely populated and industrial areas in the state.

Three commonalties guide program design and implementation:

- All tribes are confronted by serious water quality issues;
- All tribes require necessary infrastructure to adequately address these issues; and
- A watershed/ecosystem approach is the best approach to solving these issues because of their multi-jurisdictional nature.

The tribes in Washington developed and adopted the CTWQP as a watershed protection strategy to safeguard the resources on which they depend for their economic, spiritual and cultural survival. This strategy provides for the development of infrastructure, program implementation and statewide coordination.

At a time when EPA is working to improve responsiveness to Indian government and Indian lands, the Coordinated Tribal Water Quality Program provides a national model. The program demonstrates how tribes and EPA can improve the structure of their relationships, thereby improving the success of ecosystem management approaches. Additionally, this model program has produced transferable tools that can be shared with tribes throughout the nation. These tools include:

- Routine coordination and networking among tribes, state agencies and EPA;
- A coordinated tribal water quality database design and structure;
- A tribal water quality standards template;
- A Coordinated Tribal Water Quality Program design manual; and
- A cooperative state/tribal 303(d) strategy.

The tribes know that the battle against water pollution cannot be fought alone. To succeed, it will require cooperative, coordinated efforts with other governments. To make every funding dollar work to its fullest, the tribes are building partnerships with other governments to implement coordinated, cooperative programs that address water quality issues.

For the past 23 years the tribes in Washington have been successfully developing comprehensive, cooperative agreements with state and local governments and private interest groups to protect and manage natural resources essential to the survival of fish and shellfish. These processes, unique in the nation, have brought previously contending parties together in efforts to address difficult issues.

The tribes are committed to managing water quality on a watershed/ecosystem basis that transcends political boundaries. To that end the tribes have developed the CTWQP, which benefits not only the tribes, but all residents of the state.

The federally recognized tribes in Washington are confronted by serious water pollution issues, but lack the means to adequately address these issues. The main sources of pollution degrading tribal waters are:

- Urbanization;
- Agricultural practices;
- Logging and other silvicultural activities;
- Failing septic systems;
- Storm water runoff and sewer overflows;
- Municipal and industrial discharge;
- Industrial point source pollution;
- Municipal and industrial water diversions; and
- Mining.

Many of these pollution sources originate some distance from tribal reservations, yet still threaten tribal health and well-being. These types of pollution threaten the survival of salmon, shellfish and other natural resources on which the tribes depend for their survival.

Nearly all tribes operate fish hatcheries and other facilities to supplement stocks of wild salmon. These facilities, which depend on clean water for their operation, produce an average of 40 million young salmon annually.

Participating tribes want the CTWQP coordinating mechanism and technical components to build on the existing efforts of individual tribes and other entities to improve water quality, restore salmon populations and protect shellfish. The CTWQP is neither intended to replace existing tribal programs nor compete with them for funding.

The Program

For 12 years, 27 federally recognized Indian tribes in the State of Washington have been implementing the Coordinated Tribal Water Quality Program. Much has been accomplished in that time. As previously described, the CTWQP has two components – individual tribal programs and coordination.

Individual Tribal Programs

Each of the 27 tribes has professional staff to accomplish program activities. Work in FY 02 continues successful program implementation.

Utilizing the CTWQP, tribes proceeded to develop and implement watershed management plans, monitor water quality trends, map problem areas, clean up shellfish beds, establish wellhead protection programs, and develop water quality standards.

As sovereign governments and partners in water quality management, the tribes also began participating in cooperative watershed-based, inter-governmental water quality protection activities.

Coordination

The Northwest Indian Fisheries Commission, functioning as the coordination entity for the CTWQP, organizes and facilitates bi-monthly program meetings, provides a forum for program policy development, serves as an information clearinghouse, represents tribal interests on statewide policy and technical committees, arranges meetings of tribal, state and federal participants to address water quality issues, facilitates implementation of tribal water quality programs, and works to maintain program funding. The intent is to support tribal programs while maintaining a coordinated program focus, allowing tribes to focus on their local water quality concerns.

Accomplishments

The continuing success of this tribal water quality protection strategy is encapsulated in the following list of program accomplishments. This is not intended to be a comprehensive list, but a representation of program achievements and the widespread environmental benefits that can be attributed to the program. The success of water quality protection and restoration in Washington requires the tribes to be full and consistent partners.

Tribal Program Accomplishments

The **Kalispel Tribe** applied for Treatment as a State (TAS) for Sections 303(c) and 401 of the Clean Water Act in November 2000. On Nov. 4, 2002 the EPA granted TAS status to the tribe. The Kalispel Tribe has previously received Treatment as a State for Sections 106 and 319. Water quality standards have been under development for about two years and are near completion. In September 2002 the draft standards were released for public comment. A public hearing was held in November and the Kalispel Tribe is currently responding to comments received. When the response to comments are complete and any necessary revisions to the standards made, the tribe will adopt the standards and submit to EPA for final review and approval.

The **Makah Tribe** hired a new water quality/resource specialist in January 2002, and a full-time water quality technician in March. The tribe has since completed and received approval from the EPA of the Makah Water Quality Monitoring Plan and Quality Assurance Project Plan. Under the monitoring plan the tribe will collect chemical, physical and biological data that will be used to track the health of the local aquatic environment. The tribe continues to participate in discussions with EPA regarding their Water Quality Standards and Treatment as a State application. Baseline research has been completed on the tribe's Non-point Source Assessment and Management Plan development needs.

Funds allocated to the **Nooksack Tribe** Natural Resources Department supported two water quality related investigations; a circulation study for Drayton Harbor and data collection related to nitrate loading and transport in groundwater. The circulation study is a cooperative effort with Environment Canada to construct a numerical model that simulates circulation in the Boundary Bay vicinity, specifically to examine fecal coliform loading and distribution in the Semiahmoo Bay and Drayton Harbor waters.

Drayton Harbor is a Usual and Accustomed shellfish harvest area for the Nooksack Tribe, and it has been closed to shellfish harvest due to high fecal coliform concentrations since 1998. The tribe hopes to better understand the contribution of different sources to the observed distribution of fecal coliform with the circulation model simulations data. With that information efforts can be better focused on reduction of those model-delineated sources.

The **Quileute Tribe** continued its two-year training of tribal technicians under EPA's Indian General Assistance Program. The tribe acquired a Datasonde device for measuring inorganic water quality criteria. Tribal technicians have grown in confidence with respect to field work and data entry and will form an important part of the tribe's permanent water quality team.

The major efforts of the **Squaxin Island Tribe's** water quality program have been 1) protection of shellfish harvest in Oakland Bay and 2) monitoring stream temperatures and flows in the tribe's treaty fishing area. Tribal tidelands are threatened with harvest restrictions and the tribe continues to work with Mason County to trace and eliminate sources of fecal coliform. For temperature, several streams have been nominated for the new 303(d) list currently being developed by the Department of Ecology. One large implementation project is under way. The plan is to convert a pasture along Skookum Creek on newly acquired tribal trust lands into a functioning riparian buffer. The first step is to plant several thousand conifers next spring to establish a base for long term recruitment of large woody debris and shade. Once a geomorphic analysis is complete, improvements to the stream channel that will benefit water quality will follow.

The **Swinomish Tribe** purchased a landing craft style boat and small tractor that loads on the boat. The boat is used to monitor marine water quality and provide access to remote shellfish harvest areas where the tribe surveys the populations and monitors for paralytic shellfish poisoning. The landing craft aspect of the boat gives the tribe access to beaches that can only be accessed by water. The tribe is also monitoring spartina, an invasive non-native aquatic weed that chokes off important marine estuary environments.

Statewide Program Accomplishments

As part of a statewide water quality management model, the tribes and Washington Department of Ecology (DOE) have entered into an intergovernmental approach to coordinate monitoring efforts in safeguarding the water quality throughout the state. Through this technical assistance project, DOE is planning to share resources and expertise with tribal governments to more effectively protect the ecological integrity of our aquatic systems.

Additionally, the Coordinated Tribal Water Quality Program is beginning to implement a Coordinated Tribal Water Quality Database to more efficiently organize, utilize and share data.

A Model EPA/Tribal Partnership

As the EPA has begun to address its responsibility to tribal lands and resources, the CTWQP is demonstrating how the tribes and EPA can work together. The program also is fulfilling EPA goals for working with Indian governments and lands. Those goals include:

- Development of tribal management capacity;
- Delegation of environmental protection programs to tribes; and
- Encouragement of cooperation between tribal, state and local governments to resolve environmental problems of mutual concern.

The Coordinated Tribal Water Quality Program is producing tribal water quality protection tools with nationwide applicability. To date, four distinct tools have been developed:

- A program design structure that works to coordinate the activities of 26 individual tribal government programs while supporting both their autonomy and sovereignty;
- The Tribal Water Quality Standards Template, a document created to assist tribes and tribal staff who have selected to incorporate the development of water quality standards into their water quality protection programs;
- The 303(d) Cooperative Implementation Plan. This plan outlines an inter-governmental working relationship between DOE and individual tribal governments in completing the 303(d) listing process both on- and off-reservation throughout the state's watersheds; and
- A Coordinated Tribal Water Quality Data Base design.

Conclusion

Through the Coordinated Tribal Water Quality Program, the tribes have the same goal for Washington waters as the federal Clean Water Act: To restore and maintain the chemical, physical and biological integrity of the nation's waters.

For More Information

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Tribal Participation In The TFW/FFR Agreement

Introduction

More than a decade ago, treaty tribes and other stakeholders in Washington's forest resources agreed to find common ground for responsible natural resource management instead of waging costly and lengthy battles in the courts to resolve their differences. The result was the unprecedented Timber/Fish/Wildlife (TFW) Agreement. Since then, the tribes and tribal organizations in Washington State have participated in the TFW Agreement, along with the timber industry, state government, and the environmental community.

A variety of factors – including the listings of several western Washington salmon stocks under the Endangered Species Act (ESA), ongoing statewide water quality degradation, and concern over the continued economic viability of the timber industry – brought TFW participants together in November 1996 to develop joint solutions to these problems. Federal and local governments participated original TFW members in what is commonly referred to as the TFW "Forestry Module Negotiations," a significant component of Washington's statewide salmon recovery effort. The result was a plan to update forest practices rules called the Forests and Fish Report (FFR), which was completed in April of 1999, and later adopted by the Washington State Legislature.

The FFR is based on four goals:

- To provide compliance with the ESA for aquatic and riparian-dependent species on non-federal forest lands;
- To restore and maintain riparian habitat on non-federal forest lands to support a harvestable supply of fish;
- To meet the requirements of the federal Clean Water Act for water quality on non-federal forest lands; and
- To maintain the economic viability of the timber industry in the State of Washington.

Staff of the Upper Columbia United Tribes organization gather gravel samples to check for sediment levels and other factors that could affect salmon. *Photo: P. Peterson*

The six caucuses participating in FFR implementation are:

- The Federal Government Caucus represented by the National Oceanic and Atmospheric Administration (NOAA), Environmental Protection Agency (EPA), and U.S. Fish and Wildlife Service (USFWS);
- The Tribal Caucus represented by individual tribes and Indian nations in the State of Washington;
- The State Government Caucus represented by the Department of Natural Resources (DNR), Department of Ecology (DOE), Washington Department of Fish and Wildlife (WDFW), and Governor's office;
- The Local Government Caucus represented by the Washington Association of Counties and individual counties;
- The Environmental Caucus represented by the Washington Environmental Council, the National Audubon Society, American Rivers, and Sustainable Fisheries Foundation; and
- The Timber Landowner Caucus represented by the Washington Forest Protection Association, the Washington Farm Forestry Association, and individual timber companies and small landowners.

Tribal Participation In TFW/FFR Implementation

While there is not consensus among tribes on the entire Forests and Fish Report, there is consensus that the Adaptive Management Program component is critical to its success. Adaptive management is the process of evaluation and monitoring to constantly gauge the effectiveness of management practices and determine if changes are needed. This ranges from the use of Interdisciplinary (ID) Teams to properly implement the intent of the forest practices rules in complex site-specific situations, to conducting long-term effectiveness monitoring to establish whether the rules are meeting resource objectives.

The tribes were the lead authors on adaptive management permanent rule language that was unanimously supported by the other TFW caucuses. Tribes also agree that FFR can succeed only if the Washington Department of Natural Resources (DNR) vigorously enforces the forest practices rules and performs scientifically rigorous compliance monitoring. It is imperative that additional funding is appropriated to support these programs.

Tribal participation is a critical component of TFW and FFR implementation. The federal stakeholders continue to rely heavily on tribal technical information to gauge its success. The tribes offer a centuries-old tradition of resource stewardship, practice state-of-the-art technological innovation, and are strategically located to respond to the critical management needs in their local watersheds.

There are three distinct advantages to this process and structure. First, it provides a broad base of local participation for all parties, including each tribal government involved in the process. Second, it provides tribal and local governments with flexibility to address regional and political differences. Third, this process and structure is efficiently based without a top-heavy bureaucratic response that is costly and slow to react to environmental problems.

For the tribes, the primary factor in the success of TFW has always been the cooperative decision-making process. This consensus-based approach has empowered the tribes and acknowledged their management authority regarding forest practices management. The tribes have demonstrated their ability to establish and maintain a cooperative process for the management of forest resources while incorporating tribal concerns. As they have throughout the TFW process, participating tribes are utilizing the Northwest Indian Fisheries Commission for necessary technical expertise and to coordinate their work effectively and collaboratively.

Tribal involvement with the implementation of the FFR has evolved with the availability of federal funds to support those efforts. A tribal base program for evaluation of forest management impacts upon treaty-protected resources is furthering the development of tribal capacity in the areas of silviculture, geology, and hydrology to complement their fisheries expertise. Additionally, tribal programs require coordination, information management and access to technical expertise to support tribal efforts as co-managers.

The tribes continue to develop and implement a comprehensive work plan evaluating the forest management guidelines set forth in the FFR for adequacy in meeting tribal salmon recovery goals. They have developed a comprehensive communication network and continue to implement a coordinated tribal response to improve both the content and application of the FFR in watersheds throughout the State of Washington.

Key Work Plan Elements

The tribal workplan has been developed to promote active participation in the TFW/FFR stakeholder process, to provide scientific and technical support for tribal adaptive management project implementation, and to assist the tribes in addressing their specific issues and concerns.

Key work plan elements include:

- Tribal TFW/Forests and Fish Program development and coordination: NWIFC provides the lead program development and coordination to tribes in the State of Washington. A full-time coordinator, silviculturist, and geomorphologist/hydrologist have been hired as the program's core team leaders to provide the communication and scientific expertise to assist the tribes implement the FFR. An intranet Web site is used to facilitate dissemination of information and support continued development of the work plan.

- Forest Practices Board (FPB) support: The tribes are coordinating and developing a new policy and technical support network for the tribal representative on the Forest Practices Board. Participation at this level in forest practices continues to provide guidance for adaptive management implementation.

- TFW Policy Committee Participation: The tribes continue to build a strong presence on this committee to comment on and help direct forest practices policy and actions.

- Adaptive Management Program Development and Participation: The TFW/FFR Adaptive Management Program is the heart of the tribal scientific/technical effort and is considered essential for successful implementation of FFR. The tribes are providing key assistance in developing an effective programmatic protocols and standards.

- Monitoring Design Team (MDT) Participation: The tribes have three participants on the 10-member MDT. The MDT is a "blue-ribbon" panel of scientists that have been charged to help shape the overall CMER monitoring program by developing a comprehensive and integrated monitoring design. The March 2002 draft of the MDT report is currently being used to help CMER design their 2003 workplan and set the framework for comprehensive multi-year work plan objectives.

- Implementation of New Permanent Forest Practices Rules: On May 17, 2001, the Forest Practices Board passed permanent forest practices rules adopting most of the provisions of the FFR. The rules went into effect on July 1, 2001. The tribal FFR program is working to support accomplishment of some remaining pieces required by the rules. This includes many unfinished Forest Practices Board manuals, a CMER protocols and standards manual and work plan, and road maintenance and abandonment evaluations.

Case Studies

Following are a few examples of tribal activities as part of TFW/FFR implementation.

Skokomish Tribe: Hardwood Conversion

Focusing on preserving future salmon runs, the Skokomish Tribe worked with a timber company and other agencies to help keep a timber harvest from damaging important fish habitat along the Dewatto River.

Earlier this year, the tribe reviewed Olympic Resource Management's application to log a portion of wetlands within the tribe's treaty area. The area did not have the necessary amount of conifer trees needed to allow for a timber harvest, so the tribe and the timber company worked out an alternate plan that allowed trees along an unnamed tributary of the Dewatto River to be logged as a "hardwood conversion," which involved replacing the harvested alder trees with conifers.

The agreement includes leaving in place the area's existing conifer trees, which provide shade and better habitat for salmon in the river. After falling in the river, conifers decompose slower than alder tress, creating good habitat for juvenile and adult salmon.

"Basically the agreement was a winning situation for all of those involved," said Marty Ereth, habitat biologist for the tribe. "All the groups that took part in this process worked together and reached an agreement on how to go about managing this land in an effective way."

Lummi Nation: Cultural Resources

"Cultural sites like these are non-renewable resources," says Lummi Nation Timber/Fish/Wildlife Technician Tom Edwards, motioning with his hand across the expanse of a forest along Lake Whatcom.

Within a few acres from where Edwards is standing, Lummi tribal members have gathered tree bark for medicinal purposes and traditional regalia since before recorded history began. The ancient practice continues to this day on this same site.

But there are also economically valuable cedar trees here, as well as throughout the Lake Whatcom watershed, that local timber companies long to harvest. Balancing those desires with the fundamental cultural needs of treaty Indian tribes like the Lummi Nation is what the Timber Fish and Wildlife process is all about. The Lummi TFW staff strive to ensure that local economic development does not destroy invaluable cultural resources.

It's a big job – Lummi Nation reviews about 4,000 forest practices applications every year – and people like Edwards are doing it, monitoring and analyzing the potential impacts of lumber operations on areas of historical, archaeological and cultural significance. It's also a crucially important job.

"The continued destruction and desecration of these places impacts the ability of our younger generation to practice our way of life – a way of life we've been practicing since time immemorial," Edwards said. That's one reason the Lummi Nation has such a passion for saving sites that their ancestors used. One recent expedition revealed a totem pole estimated to be 20,000 years old; another uncovered a battle site stocked with myriad artifacts such as hatchets, arrowheads, and arrows.

The Timber, Fish and Wildlife Process has made this work easier.

"In the past, it was much more difficult to reach agreements. Others didn't understand the importance of cultural resources as well as they do now," said Edwards. "There is still a lot of work to do in terms of increasing understanding, but we've made progress. And any progress towards protecting these sites is valuable."

Hoh Tribe: Inter-disciplinary Team Participation

The Timber Fish Wildlife (TFW)/ Forest and Fish rules provide opportunity for tribes to participate in the review process that occurs before a forest practice application is approved.

This is important to all tribes because timber harvest and associated activities such as road building have the potential of affecting salmon harvest by impacting the resources that produce fish.

Forest practices can impact salmon habitat in a number of ways. These include removal of streamside trees that provide shade to moderate stream temperatures and which can be incorporated by the stream to provide salmon rearing habitat.

Tribes and their biologists have extensive information on where fish can be found seasonally and where important habitat is located, information that regulators or timber companies may not have.

"For instance, if someone is building a road and they don't have a stream correctly mapped as a fish-bearing stream, we are able to bring that information forward through the review process so the road crossing is properly constructed to allow fish passage," said Jill Silver, TFW biologist for the Hoh Tribe.

The tribe reviewed a recent forest practices application in which the harvest area included stream-associated wetlands. The wetlands weren't identified in the application as fish habitat.

The tribe suggested that an Inter-disciplinary (ID) team needed to be called together to discuss the missing information. ID team meetings are called by the state Department of Natural Resources (DNR) and are made up of regulatory agencies and scientists with the qualifications necessary to evaluate forest practices plans. The ID team was able to make changes to the proposed operation that provided improved protection for the fish and water resources.

"Through the TFW review process, the Hoh Tribe is able to communicate to all of the agencies and landowners who regulate or whose operations have the potential to affect tribal fisheries," said Silver. "Through TFW, we map, we monitor, we inventory, we advocate and we educate."

Upper Columbia United Tribes: Perennial Initiation Point Surveys

When Grand Coulee Dam was built in the 1930s, it severed the Indian people of the upper Columbia River from the salmon they have always depended on. Despite having not seen salmon in the upper Columbia for over 70 years, the tribes that make up the Upper Columbia United Tribes – the Spokane, Colville and Kalispel in Washington, along with the Kootenai and Coeur d' Alene tribes in Idaho – are working to ensure when salmon do come back, they will have the habitat they need to survive. Working to restore and maintain healthy, clean waters is important to the wide range of fish, wildlife, plant life and human life in the river system.

The tribes have been active participants in the statewide perennial initiation point project (PIP) in search of headwater stream data. They have also initiated a riparian characterization inventory to gather baseline data for functioning fish habitat.

"It was apparent to us that to satisfy the tribal concerns of cool clean year round water, we needed to understand our headwater streams," said Pete Peterson, forest practices coordinator for UCUT. "Also, it is critical to determine the make-up of healthy riparian habitat under current circumstances." So, the tribes have been active participants in the statewide perennial initiation point project (PIP) in search of headwater stream data. They have also initiated a riparian characterization inventory to gather baseline data for functioning fish habitat.

By monitoring and taking inventory of habitats, the tribes are laying the groundwork for future habitat restoration work.

"What we want to answer is what kinds of forests can we have today? That question is at the heart of our pursuit," said Peterson. "Timber harvest is part of the future here, but so is putting more wood in streams, creating shade and augmenting flow."

For More Information

For more information about the natural resource management activities of the treaty Indian tribes in western Washington, contact the Northwest Indian Fisheries Commission, 6730 Martin Way E., Olympia, WA., 98516; or call (360) 438-1180. Visit the NWIFC home page at www.nwifc.org.